FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

November 21, 2003

The Honorable Edward J. Markey
U.S. House of Representatives
Washington, D.C. 20515

Re: Security Relating to Vessels Transporting LNG and Onshore LNG Storage Tanks

Dear Congressman Markey:

Thank you for your November 7, 2003 letter regarding the Federal Energy Regulatory Commission's use of a Department of Energy funded study by Quest Consultants, Inc. You reference recent press reports that call into question the accuracy of the Quest Study and imply that a more recent draft study being prepared by the National Oceanic and Atmospheric Administration (NOAA) suggests that the public safety consequences of a terrorist attack or accident at or near the Distrigas facility could be far more severe. Enclosed are my responses to the five specific questions you ask pertaining to these issues which I hope you will find helpful. Please feel free to call me (202-502-8000) should you want to discuss these answers with me.

I want to assure you that consideration of public safety is our highest priority when fulfilling our Congressional mandate under the Natural Gas Act to regulate facilities for the importation of natural gas and the transportation of natural gas in interstate commerce. We have been and will continue to be proactive in addressing safety concerns. In reviewing a company's application to site an LNG terminal, for example, we look at the descriptions of the area impacted, the certification of compliance with the Department of Transportation and other safety standards and require an environmental report. In addition to analyzing and verifying the information contained in an application and environmental report, we also consult with individuals and federal, state and local agencies with expertise on resources affected by the application and responsibilities under related statutes. In the case of our decision in the Hackberry LNG application, the Quest Study was one of many factors we considered in rendering our decision, and we received no comments in opposition to the use or validity of the Quest Study.

Regarding the NOAA Study, we will review it carefully to determine what additional insights or information it provides in estimating the hazards of LNG shipping and thermal radiation. To the extent that the study is appropriate for determining the thermal radiation hazards of future projects, you can rest assured that we will use it. Nothing is more important in the Commission's considerations than the safety of the American public.

Best regards,

Pat Wood, III
Chairman

Enclosure

Responses to November 7, 2003 letter from Congressman Markey:

1. **How has the Commission made use of the Quest Study in connection with its responsibilities regarding the siting and safety of LNG facilities and the transportation of LNG to such facilities? In your response please explain exactly how the Quest study has been used, including regulatory proceedings, litigation, testimony, briefings or other occasions in which the study has been used or cited.**

   In performing its responsibilities regarding the siting and safety of LNG import facilities, the Commission examines a full spectrum of safety issues such as plant design and safety equipment, hazard exclusion zones for the plant site, the safety of the gas transmission pipeline and security issues, as well as potential hazards from LNG vessels in transit. The Quest Study is one of several hazard models that have been used to evaluate the overall safety of proposed LNG import terminals and expansions at existing sites under FERC jurisdiction. The results of this study are reported in the Trunkline LNG Expansion Project Environmental Assessment (July 2002); the Elba Island Expansion Project Environmental Assessment (February 2003); the Hackberry LNG Project Draft Environmental Impact Statement (March 2003) and Final Environmental Impact Statement (August 2003); and the Freeport LNG Project Draft Environmental Impact Statement (November 2003).

   The study was used to represent the types of credible worst case damage scenarios that could occur to an LNG tanker and to predict potential impacts from those events.

2. **Does the Commission agree with the statement attributed in the press to Mr. John Cornwell, the lead scientist for the Quest study, that the Quest numbers are not appropriate "for many of the things they are being used for," including use in an Environmental Impact Statement for a proposed new LNG facility?**

   The Quest Study that was prepared for the safety issues related to transporting LNG to the Distrigas terminal was reviewed by Commission staff as part of an inter-agency effort in October 2001. We believed the study to be a reasonable approach for modeling time-released LNG spills on water resulting from credible damage scenarios for a cargo tank on an LNG vessel. Although developed for Boston Harbor, we found no site specific assumptions that would limit use of the study for other waterways, and therefore we presented the information in the documents above. We are currently evaluating a number of other studies that have emerged in the two years since the Quest Study was prepared.

3. **Did the Commission base any regulatory, oversight, or enforcement actions or decisions on the accident scenarios or accident consequences set forth in the Quest report or the Lloyd's report? If so, does the Commission intend to revisit any of those actions or decisions? If not, what other studies or analyses did the Commission base its post-September 11th actions or decisions upon?**

As noted above, the Quest Study was one of several models used to evaluate the overall safety of the LNG import system. The thermal radiation and flammable vapor cloud distances determined in this study do not define exclusion zones, but rather provide guidance for authorities in developing operating restrictions for LNG vessel movements, as well as in establishing potential impact areas for emergency response and evacuation planning. We also note that the flammable vapor cloud hazard distances in the Quest Study are significantly greater than the radiation distances which have been subject to recent dispute.

The Commission issued orders authorizing the Trunkline LNG Expansion Project (Docket No. CP02-60-000), the Elba Island Expansion Project (Docket No. CP02-379-000), and the Hackberry LNG Project (CP02-374-000). We believe that the information in the supporting environmental documents adequately addressed the safety issues related to the specific features of each waterway to be transited by LNG vessels; and therefore do not see a need to revisit these actions. However, we are continuously evaluating the differences in other studies and, as models improve, we will apply the most appropriate approach in our overall safety reviews.

4. **The aforementioned press accounts raise serious questions about the adequacy of the Quest study, indicating that it has not been peer reviewed and is contradicted by other scientific studies of LNG fires and explosions. Are you familiar with these concerns that have been raised about this non-peer reviewed study, and if so, do you believe that such an non-peer reviewed study should not be used as a basis for policy decisions by the FERC with respect to LNG siting or LNG safety?**

As previously noted, we reviewed the Quest Study as part of an inter-agency effort during October 2001. We found that the results were within the range of probable outcomes for a time-released LNG spill on water when compared to previous efforts in modeling instantaneous LNG spills on water. Consequently, we presented the results of the Quest Study in the various Environmental Assessments and Environmental Impact Statements issued over the ensuing two years. These documents were distributed for public scrutiny and comment among federal, state and local agencies, as well as the public in the vicinity of the projects. We received no comments in opposition to the use or validity of the study.

5. **The aforementioned press reports also indicate that a draft NOAA study projects hypothetical LNG fires that are much larger than those projected in either the Quest or Lloyd's reports. According to the Herald, "NOAA's study...generally sides with a more devastating scenario long portrayed by Massachusetts Institute of Technology emeritus James Fay, said Bill Leher, a researcher on the NOAA study." The Register article further suggests that the NOAA study may be more in line with other scientific studies that have been done on this subject. Are you familiar with the NOAA study? Do you agree or disagree with its conclusions? Do you agree or disagree that the NOAA study, and the Fay studies, appear to be more in line with the scientific and technical literature on this subject. If you agree, please indicate whether you intend to make any changes in the Commission's oversight or regulatory policies or actions based on this new study. If you disagree, please explain the basis for your disagreement.**

We are aware that a NOAA study is under development but that no report has been released or made available for public review. From reports in the media, it appears that the hazard range estimated for LNG pool fires on water in the NOAA study is not dissimilar from past, as well as more recent, studies. It has been our experience that each modeling effort has unique characteristics and underlying assumptions which result in the various ranges in estimated thermal radiation hazard zones. The NOAA study, when available, will be added to the technical literature utilized by the Commission in its regulatory review of LNG import terminal applications and will be carefully reviewed to determine what additional insights and information it provides to the Commission.